

DIESEL FUEL ADDITIVE

ABSTRACT

A diesel fuel additive composition, a fuel containing the fuel additive, a method for improving diesel engine performance using the additive. The diesel fuel additive includes a reaction product of (a) a hydrocarbyl-substituted acylating agent and (b) a reactant selected from the group consisting of a nitrogen-containing compound, a hydroxyl-containing compound, and water that provides a reaction product selected from the group consisting (1) a mono-amide/mono-acid or metal free mono-acid salt thereof, (2) a diacid or metal free diacid salt thereof, and (3) mono-ester/mono-acid or metal free mono-acid salt thereof. The reaction product includes at least about 10 molar percent acid groups based on total moles of the reaction product.

Fig. 1